

THE DER WEEKLY

www.eren.doe.gov/der

Vol. 2 No. 27

July 6, 2001



Industry News

Solar Turbines Receives R&D 100 Award

[Solar Turbines Inc.](#) has been selected to receive one of this year's R&D 100 awards. The award is for developing environmental barrier coatings for the ceramic composite combustion liners used in gas turbines. Solar Turbines was selected by R&D Magazine and will be featured in the September issue.

Cogen will Provide 23 MW to Cloquet

Minnesota Power has completed testing of its new generating unit at Potlatch Corp.'s pulp and paper mill in Cloquet. Pending approval of test results from the Mid-Continent Area Power Pool, the new unit will generate up to 23 megawatts of electricity, enough to provide service to about 17,000 residential customers. Cost of the project is estimated at \$10 million. Installation work on the new turbine began two months ago, after Potlatch officials identified additional steam capacity that could support electricity generation. Minnesota Power worked with Potlatch to add equipment, including a turbine and generator. The additional fuel for the new cogeneration unit is a combination of wood waste and natural gas and will supply energy to Minnesota Power customers at a time when additional low-cost energy resources are needed, the power company said in a news release. Minnesota Power will own the new turbine generator and Potlatch will operate and maintain it at Minnesota Power's expense.

[Duluth News-Tribune](#) June 29

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CEC Awards \$2.5 Million for Solar Power

The City of Vallejo has been awarded a grant of \$2.5 million by the [California Energy Commission](#) (CEC) for the construction of a one-megawatt solar power plant. The city will build the solar facility in partnership with [BP Solar](#) and is expected to be completed by year's end. The project will be the largest of its kind in the United States. BP Solar and the City of Vallejo will split the revenues from selling power once the plant is operational.

New Calpine Plant Online in CA

Earlier this week, California issued a "power alert" for the first time since the Federal Energy Regulatory Commission approved a price mitigation plan for the West. This event happened as [Calpine Corporation](#) began operation of its new 540 MW generating plant. The Calpine plant is the second generation facility to begin operations in less than a week. California Governor Gray Davis (D) was on hand to help dedicate Calpine's Sutter Energy Center just as the California Independent System Operator announced the Stage Two power emergency. The ISO took this action after the Mohave coal-fired power plant in Nevada tripped off line. The Nevada plant provided 1,500 MW of imported power to the Golden State which more than offset the 860 MW of generation the new Calpine plant provided. In addition, the weather was five to six degrees warmer than expected which required the state to use an extra 2,000 MW of power. A 550 MW generation plant is scheduled to be opened by Calpine next week in Los Medanos.

The Electricity Daily, July 5



Policy News

Davis Asks for Voltage Reductions

On July 3, Governor Gray Davis asked the [California Public Utilities Commission](#) (PUC) to consider allowing major utilities to slightly reduce voltage to California homes and businesses during peak demand periods -- a move that will save up to 500 megawatts of electricity and not cause any noticeable impact for customers.

(Continued on page 2)

"I have directed my entire administration to find new megawatts for this summer with new generation, conservation, and greater efficiencies within the system," Governor Davis said. "There are many experts from California's utilities, as well as from the Energy Commission and the Livermore Labs, who believe a slight reduction in the voltage of the California grid would be beneficial. This proposal may well achieve new efficiencies and reduce electric bills for Californian ratepayers. I urge the PUC to give it serious consideration."

Voltage reductions of 3-5 percent have been successfully implemented during emergencies in several states. Governor Davis is asking the PUC to review the actions that it may need to take to facilitate and expedite the utilities' plans.



DOE News

The Office of Distributed Energy Resources hosted three Egyptian delegates representing a government-run utility on July 5. The briefing in Washington, DC, gave the delegation, who was interested in combined heat and power, an overview of the Department's activities as well



By the Numbers

Energy Vampires

- | | |
|------------|--|
| 4 | Percentage of average home's power consumption due to appliances that drain power when not in use |
| 52 billion | KWhs of power each year that all American homes combined use because of vampire equipment |
| 26 | Number of average-size power plants that could be turned off if this vampire consumption was reduced to zero |

Associated Press, June 29 2001

as international opportunities. The delegation engaged the group so that they can try and foster the growth of CHP in Egypt, which currently only has three projects. The meeting concluded with a tour of the University of Maryland CHP facility, which integrates several DER technologies, such as a microturbine, absorption chiller, and desiccant unit.



Power Crunch

Over \$85 Million Investment in Energy Efficient Science and Technology

18 organizations and five universities are receiving \$85.7 million in research awards to perform research and development on cutting-edge energy efficiency and clean energy science and technology. Industry and outside organizations are providing a share of the total project costs.

Many of the projects will support development of technologies for use in vehicles and buildings, hydrogen production, purification and storage for transportation as well as engine technologies. Other awards will support research for distributed power generation, industrial and building systems, transportation and stationary power applications. Eleven of the projects are fuel cell related, six involve hydrogen, five are energy efficiency in nature, and two support engine technology.

"Enhancing energy efficiency is an important goal of the President's National Energy Policy," said Secretary of Energy Spencer Abraham. "Fuel cells, hydrogen technology, and advanced combustion energy engines are among the most promising areas of the department's research and development work. By working together with partners from industry and the academic community we can make the technological advances and scientific breakthroughs needed to fully realize the potential of these technologies."

The fuel cell research will be primarily focused on overcoming technical barriers to introducing these new technologies to the public. These barriers include high component costs, size, weight, and start-up time. The hydrogen projects will address on-board hydride storage systems, off-board reforming and storage, and hydrogen enrichment. The engine technology research will focus on gasoline-fueled Homogeneous-Charge, Compression-Ignition engines, a promising technology that can approach the efficiency of diesel engines, but with the potential for extremely low oxides of nitrogen (NOx) emissions and lower cost.

One of the recently completed improvements is the installation of new air conditioning chillers to support the East and West Wings and selected areas of the Old Executive Office Building.*



CALENDAR OF EVENTS

JULY 2001

9-13	4th International Symposium on New Materials for Electrochemical Syst.	Montreal, Quebec	www.newmaterials.polymtl.ca/eng/congres
10	CA Advanced Reciprocating IC Collaborative Workshop	Sacramento, CA	www.energy.ca.gov/distgen/notices/2001-07-02_arice_workshop.html
10-12	Gas Storage Workshop	Kingston, Ontario	David Quinn; quinn-d@rmc.ca
11-12	FuelCell Investor Conference	Portland, OR	www.srinstitute.com/cr201 , or 800-666-8514
16-19	2001 National Workshop on State Building Energy Codes	Burlington, VT	www.eren.doe.gov/buildings/codes_standards/buildings/2001natl_workshop.html
24-27	ACEEE Summer Study	Tarrytown, NY	www.aceee.org ; Rebecca Lunetta; 302-292-3966
30 - Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg, tina.kaarsberg@ee.doe.gov; megan_maguire@nrel.gov

AUGUST 2001

7-8	Natural Gas/Renewable Energy Hybrids Workshop	Morgantown, WV	joan.barbish@netl.gov
11-15	NCSL Annual Meeting and Exhibition	San Antonio, TX	www.ncsl.org
21-22	Natural Gas/Renewable Energy Hybrids Workshop	Golden, CO	barbara_ferris@nrel.gov
21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-30	Integrated Energy Efficiency Conference and Facilities Management and Maintenance Expo	Cleveland, OH	www.aeecenter.org
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeecenter.org



CALENDAR OF EVENTS

SEPTEMBER 2001

9-12	MicroGeneration to PowerParks: Supply options and regulatory challenges for RE and DG techs.	Troy, MI	Great Lakes Renewable Energy Assn. www.glrea.org
9-14	6th International Conference on Carbon Dioxide Utilization	Breckenridge, CO	Barbara Ferris, 303-275-3781; www.nrel.gov/iccduvi/
10-11	Energy Trading in the New Economy	New Orleans, LA	www.eyeforeenergy.com/eeo2
11-13	7th Grove Fuel Cell Symposium	London, UK	www.grovetfuelcell.com
16-19	NASEO Annual Meeting	Portland, ME	www.naseo.org/events/annual/default.htm
17-21	Fifth Biomass Conference of the Americas	Orlando, FL	www.fsec.ucf.edu/bioam ; dee_scheaffer@nrel.gov
24-26	Powering the Future—New Strategies and Solutions for Deploying Distributed Power in the Marketplace	Chicago, IL	www.intertechusa.com
30 – Oct. 5	UPEX'01: The Photovoltaic Experience Conference & Exhibition	Sacramento, CA	Jjudd@ttcorp.com; hosted by Sacramento Municipal Utility District; includes distributed energy technologies workshop

OCTOBER 2001

2-3	Midwest Electrical Conference and Expo	Indianapolis, IN	George Howell 800-676-2136, www.electricleagueindiana.org/expo2001/index.htm
14-17	National Center for Photovoltaics Program Review	Lakewood, CO	barbara_ferris@nrel.gov, 303-275-3781
24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org (includes CHP Expo www.aeecenter.org)
24-27	Excellence in Building 2001	Orlando, FL	www.eeba.org/conference

NOVEMBER 2001

1-4	World Congress for a Hydrogen Economy	Denver, CO	www.hydrogennow.org
11-14	113th NARUC Annual Convention	Philadelphia, PA	www.naruc.org
12-14	Fuel Cells for Stationary, Automotive and Portable Apps.	Fort Lauderdale, FL	Florida Educational Seminars, (561) 367-0193

A long-term solution involves computerizing the all buildings through the use of a building management system that will zone the HVAC and lighting systems. *

*[White House Press Release](#)